

REMARKS

Consideration and allowance of the present application is respectfully requested. By this Amendment, claims 1-13 are amended to merely clarify the recited subject matter and new claims 14-18 are added to more fully claim the disclosed invention.

Attached hereto is a marked-up version of the changes made to the specification and claims by the current amendment. The attached Appendix is captioned "Version with markings to show changes made".

All objections and rejections having been addressed, it is respectfully submitted that the present application is in a condition for allowance and a Notice to that effect is earnestly solicited.

Respectfully submitted,

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Enclosure: Appendix

APPENDIX

VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE CLAIMS:

Please amend claims 1-14 as follows:

1. (Amended) A method for supporting charging of a subscriber of a mobile station [(MS)] in a cellular radio network supporting circuit-switched and packet-switched connections [to/from] with the mobile station, the method comprising: [(MS) and comprising at least one mobility support element (MSC/VLR; SGSN, GGSN), at least one radio control element (BSC1, BSC2) and at least one subscriber register (HLR);

the method comprising producing charging information (CDR) related to the mobile station:

c h a r a c t e r i z e d b y :]

defining, for each of [several] a plurality of mobile stations [(MS)], a [respective] corresponding set [(LSA1, LSA2)] of special cells [(C1 - C3, C9 - C10)] providing at least one special service to the corresponding mobile station [(MS)];

[the subscriber register (HLR)] reporting [the] an indication of a set of special cells to at least one [the] mobility support element in an INSERT SUBSCRIBER DATA message[,] in response to [the] a mobile station initiating an attach or a routing area update procedure;

[the mobility support element in turn] responding to the reporting by sending the indication of the set of special cells to a radio control element [(BSC1, BSC2)] in a downlink message; and

determining whether [or not] the mobile station [(MS)] is in [a] one of its corresponding special [cell] cells.

2. (Amended) [A] The method [according to] of claim 1, [characterised by:] wherein:
[said] the downlink message [being] is a [BSSGP (] Base Station Subsystem GPRS
Protocol [)] message
[, preferably a BSSGP_DL_UNITDATA message or a SoLSA BSSGP message].

3. (Amended) [A] The method [according to] of claim 1, [c h a r a c t e r i z e d b y:]
wherein the charging information [comprising] includes at least one detail [items] item, each
detail item indicating an event which affects charging, the method further comprising:[:]
classifying [said] the at least one detail [items] item into at least one class of multiple
classes depending, at least, on whether [or not] the corresponding event occurred while the
mobile station was in [a] one of its corresponding special [cell] cells[; and]
wherein, the mobility support element [(MSC/VLR; SGSN, GGSN)] is configured to
[performing] perform or at least [supporting said] support the classification.

4. (Amended) A method for supporting charging of a subscriber of a mobile station
 [(MS)] in a cellular radio network supporting circuit-switched and packet-switched
 connections [to/from] with the mobile station, [(MS) and comprising several cells (C1 - C10)
 and at least one mobility support element (MSC/VLR; SGSN, GGSN) being adapted to
 receive, when it begins to serve the mobile station, a set (LSA1, LSA2) of special cells (C1 -
 C3, C9 - C10) for the mobile station, and being adapted to send the set of special cells to one
 radio control element (BSC1, BSC2);] the method comprising [the steps of]:
defining, for each of [several] a plurality of mobile stations [(MS)], a [respective]
corresponding set [(LSA1, LSA2)] of special cells providing at least one special service to the
corresponding mobile station [(MS)];

determining whether [or not the] at least one mobile station [(MS)] is in a special cell;
[and]

producing charging information [(CDR)] related to the at least one mobile station, the
charging information [comprising] including at least one detail [items, each detail] item
indicating [an] a corresponding event which affects charging;

[c h a r a c t e r i z e d b y]

classifying [said] the at least one detail [items] item into at least one class of multiple
classes depending, at least, on whether [or not] the corresponding event occurred while the at
least one mobile station was in [a] one of its corresponding special [cell] cells; and

[the mobility support element (MSC/VLR; SGSN, GGSN)] performing or at least
supporting [said] the classification using the at least one mobility support element.

5. (Amended) [A] The method of [according to any one of the preceding] claim [s,
c h a r a c t e r i z e d i n t h a t] 1, wherein reporting an indication of the set of special cells is
performed by a [the] subscriber register which is a home location register [(HLR)].

6. (Amended) [A] The method of [according to any one of the preceding] claim
[claims, c h a r a c t e r i z e d b y] 1, wherein the at least one mobility support element
[being] is a support node [(SGSN, GGSN)] of a packet radio network.

7. (Amended) A cellular radio network [being operable] configured to support circuit-
switched and packet-switched connections [to/from] with a mobile station [(MS)], the
network comprising: [several cells (C1 - C10), and:]

a plurality of cells, at least one of which being associated with one or more mobile
stations as one of a set of special cells associated with respective ones of the mobile stations,

the special cells associated with mobile stations being configured to provide at least one special service to the associated mobile station;

[for each of several mobile stations (MS), a respective predefined set (LSA1, LSA2) of special cells providing at least one special service to the mobile station (MS);]

at least one radio control element [(BSC1, BSC2) for determining] configured to determine whether [or not the] a mobile station [(MS)] is in a special cell associated with that mobile station;

at least one mobility support element [(MSC/VLR; SGSN, GGSN) being adapted] configured to receive, when it begins to serve the mobile station, [the] an indication of the set [(LSA1, LSA2)] of special cells [for] associated with the mobile station, and [being adapted] configured to send the indication of the set of special cells associated with the mobile station to the at least one radio control element [(BSC1, BSC2)]; and

at least one charging element [(CG, BC) for receiving] configured to receive charging information related to [the] mobile [station] stations, the charging information [comprising] including at least one detail [items] item, each at least one detail item indicating an event which affects charging[;],

[c h a r a c t e r i z e d in that]

wherein the [network] at least one mobility support element is [adapted] configured to [classify] support or perform classification of the at least one detail [items] item into at least one class of multiple classes depending, at least, on whether [or not] the corresponding event occurred while the mobile station was in [a] one of its special [cell] cells associated with the mobile unit [; and

the mobility support element (MSC/VLR; SGSN, GGSN) is adapted to support or perform said classification].

8. (Amended) [A] The cellular radio network [according to] of claim 7,
[characterized in that] wherein the at least one mobility support element is a serving
GPRS support node [(SGSN) which is adapted] configured to compare the cell identity
[(cell_id)] of the [MS] mobile station's current cell with the indication of the set [(LSA1,
LSA2)] of special cells [for] associated with the mobile station.

9. (Amended) [A] The cellular radio network [according to] of claim 7, [or 8,
characterized in that] wherein substantially each detail item indicates whether [or not]
the cell in question is [a] one of the mobile station's corresponding special [cell] cells.

10. (Amended) [A] The cellular radio network [according to] of claim 7 [or 8,
characterized by being adapted to organise] wherein the at least one mobility support
element is configured to support or perform organisation of detail items including the at least
one detail [items] item as consecutive records [(CDR)], wherein substantially each record
[indicates] contains an indication of whether [or not] all events indicated by the at least one
detail [items] item of the record occurred while the mobile station was in [a] one of its
corresponding special [cell] cells.

11. (Amended) [A] The cellular radio network [according to any one] of [claims]
claim 7, [to 10, characterized in that] wherein the at least one mobility support
element [(MSC/VLR; SGSN, GGSN) inserts] is configured to insert into [to each] the at least
one detail item the identity [(cell_id)] of the cell [where] associated with the location of the
mobile station [was when] at the occurrence of the event [occurred].

12. (Amended) [A] At least one mobility support element [(MSC/VLR; SGSN, GGSN)] for a cellular radio network [comprising several] including a plurality of cells, and [being operable] configured to support circuit-switched and packet-switched connections [to/from] with at least one [a] mobile station, the at least one mobility support unit comprising:

a receiver configured to receive, when the at least one mobility support element begins to serve the at least one mobile station, a list of predefined special cells associated with the at least one mobile station and configured to provide at least one special service to the at least mobile station;

a transmitter configured to transmit the list of pre-defined special cells associated with the at least one mobile station to at least one radio control element configured to determine whether the at least one mobile station is in a special cell associated with that mobile station,

wherein [(MS); the network further comprising for each of several mobile stations (MS), a respective predefined set (LSA1, LSA2) of special cells providing at least one special service to the mobile station (MS); at least one radio control element (BSC1, BSC2) for determining whether or not the mobile station (MS) is in a special cell;] the at least one mobility support element is configured to support or perform classification of at least one detail item included in charging information into at least one class of multiple classes depending on whether an event corresponding to the at least one detail item occurred while the at least one mobile station was in one of its corresponding special cells [and at least one charging element (CG, BC) for receiving charging information related to the mobile station, the charging information comprising detail items, each detail item indicating an event which affects charging;

wherein the mobility support element (MSC/VLR; SGSN, GGSN) is adapted to receive, when it begins to serve the mobile station, a list of special cells for the mobile station, and to send said list of special cells to one radio control element (BSC1, BSC2); and

c h a r a c t e r i z e d in that the mobility support element is adapted to support or perform classification of said detail items into multiple classes depending on whether or not the corresponding event occurred while the mobile station was in a special cell].

13. (Amended) A charging-related message [(CDR1 - CDR4)] for a cellular radio network [comprising several] including a plurality of cells, each cell having a cell identity [(cell_id)], and [being operable] configured to support circuit-switched and packet-switched connections [to/from] with a mobile station, wherein [(MS); the network comprising for each of several mobile stations (MS), a respective predefined set (LSA1, LSA2) of special cells (C1 - C3, C9, C10) providing at least one special service to the mobile station (MS); said] the charging-related message [including] includes at least one detail item for substantially each event that affects [the] charging of [the] a subscriber of the mobile station and, [;

c h a r a c t e r i z e d in that] for substantially each detail item, [said] the charging-related message [(CDR1 - CDR4)] is configured to at least indirectly indicate [indicates] whether [or not] the mobile station was in [a] one of its corresponding special cells [cell (C1 - C3, C9, C10)] when the corresponding event occurred.

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